

January – February 2005

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2004 HIV/AIDS Summary

North Dakota continues to have the lowest incidence of HIV/AIDS in the United States. According to the Centers for Disease Control and Prevention, state-specific AIDS incidence rates per 100,000 people ranged from 0.5 in North Dakota to 34.8 in New York state for 2003. Similar comparisons for HIV (non-AIDS) incidence rates are not possible because some states require only AIDS case reporting.

A total of 19 HIV/AIDS cases were reported to the North Dakota Department of Health in 2004. This total includes newly diagnosed (incident) cases and cases diagnosed previously in other states who moved to North Dakota during 2004.

Incident HIV case analysis provides a timelier description of the impact of HIV in North Dakota for prevention planning purposes. Incident cases reflect those individuals receiving their first HIV or AIDS diagnosis during a given time period.

In 2004, 15 new HIV cases were diagnosed in North Dakota residents and reported to the North Dakota Department of Health. Five of the new HIV cases were advanced enough to meet the diagnostic criteria for AIDS at the time of diagnosis. A total of nine new AIDS cases were diagnosed in 2004, including the five previously mentioned. Table 1 summarizes newly diagnosed HIV and AIDS cases for 2004 and compares data to the same time period in 2003.

New HIV Diagnoses (HIV and AIDS) by Year, North Dakota, 2000-2004

From 2000 through 2004, 63 new HIV cases (including AIDS) were diagnosed in North Dakota residents. During this period, 48 percent (30/63) received their diagnosis of HIV infection and AIDS within the same 12-month period.

The majority of new HIV diagnoses in North Dakota occurred in males, accounting for 80 percent of the new

diagnoses from 2000 through 2004. **(Table 2)** Among males, male-to-male sexual contact continued as the predominant mode of exposure to HIV. Among newly diagnosed females in North Dakota, heterosexual contact with a person at risk continued as the predominant mode of exposure to HIV.

Injecting drug use as a risk for transmission of HIV increased to 8 cases reported between 2000 through 2004, compared to 3 cases reported between 1995 through 1999. However, no conclusions can be drawn from this increase due to the extremely small numbers.

The majority of new HIV diagnoses continue to be in those between the ages of 20 and 49 years. However, new HIV diagnoses for those between the ages of 50 and 59 increased to 15 percent of new diagnoses from 2000 through 2004, compared to only 4 percent of new diagnoses from 1995 through 1999.

Whites continue to compose the greatest percentage of HIV diagnoses in North Dakota. The number of blacks residing in North Dakota diagnosed with HIV increased over the previous five-year period. The increased number of diagnoses is due in part to the resettlement of foreign-born individuals. These individuals arrive in North Dakota with pre-existing infections, but are classified as North Dakota incident HIV cases because they were never previously diagnosed or reported in the United States.

Cumulative (1984-2004) HIV/AIDS Cases, North Dakota

HIV and AIDS have been reportable conditions in North Dakota since 1984. The cumulative reported infections include cases newly diagnosed in the state, as well as cases diagnosed elsewhere who moved to North Dakota.

As of Dec. 31, 2004, a cumulative total of 343 HIV/AIDS cases had been reported in North Dakota, including 203 AIDS cases and 140 HIV (non-AIDS) cases.

Of these HIV/AIDS cases, 127 (37 percent) are known to have died.

Of the 343 reported HIV/AIDS cases:

- 85 percent were male; 15 percent female.
- 68 percent of reported cases were between the ages of 20 and 39 at diagnosis.
- 77 percent (265) were white, 11 percent (37) were American Indian, 9 percent (31) were black, 3 percent (9) were Hispanic and less than 1 percent was Asian/Pacific Islander.

- Most frequently indicated risk factors: male-to-male sexual contact, 52 percent; heterosexual contact, 15 percent; and injecting drug use, 10 percent.

The HIV/AIDS Program estimates that there were about 130 people known to be living with HIV in North Dakota at the end of 2004.

Table 1. New HIV and AIDS Diagnoses by Gender, Age at Diagnosis, Race/Ethnicity, and Exposure Risk

North Dakota, 2003 - 2004

	New HIV Diagnoses ¹				New AIDS Diagnoses ²				Living HIV and AIDS Cases ³	
	January - December				January - December					
	2004		2003		2004		2003			
	No.	(%)*	No.	(%)*	No.	(%)*	No.	(%)*	No.	(%)*
Gender										
Male	12	(80)	8	(89)	8	(89)	9	(82)	104	(80)
Female	3	(20)	1	(11)	1	(11)	2	(18)	26	(20)
Race/Ethnicity										
White	8	(53)	7	(78)	5	(56)	9	(82)	94	(72)
American Indian	0	--	--	--	1	(11)	--	--	10	(8)
Black	6	(40)	2	(22)	3	(33)	2	(18)	20	(15)
Hispanic	1	(7)	--	--	0	--	--	--	6	(5)
Age at Diagnosis										
≤12	0	--	0	--	0	--	0	--	2	(1)
13-19	0	--	0	--	0	--	0	--	4	(3)
20-29	4	(27)	1	(11)	0	--	0	--	37	(28)
30-39	8	(53)	2	(22)	4	(44)	5	(45)	49	(38)
40-49	2	(13)	4	(44)	2	(22)	5	(45)	28	(21)
50-59	1	(7)	2	(22)	3	(33)	1	(9)	10	(8)
Risk										
Male-to-male sexual contact (MMS)	7	(47)	4	(44)	4	(44)	2	(18)	65	(50)
Injecting drug use (IDU)	2	(13)	1	(11)	1	(11)	4	(36)	12	(9)
MMS/IDU	0	--	0	--	0	--	0	--	2	(2)
Heterosexual contact	4	(27)	2	(22)	3	(33)	1	(9)	26	(20)
Receipt of blood or tissue	0	--	1	(11)	0	--	1	(9)	3	(2)
Adult hemophilia/coagulation disorder	0	--	0	--	0	--	0	--	2	(2)
Mother w/or risk for HIV infection	0	--	0	--	0	--	0	--	2	(2)
Pediatric hemophilia/coag. Disorder	0	--	0	--	0	--	0	--	1	(1)
Risk not specified	2	(13)	1	(11)	1	(11)	3	(27)	17	(13)
Total	15		9		9		11		130	

*Due to rounding, values may not equal 100 percent.

¹ New HIV Diagnoses reflects all residents of North Dakota diagnosed with HIV infection for the first time during the time period, regardless of AIDS status. Some also may be counted as AIDS cases if they received an AIDS diagnosis during the same period.

² New AIDS Diagnoses reflects all residents of North Dakota who first met the criteria for AIDS during the time period, regardless of when their HIV infection was reported to the state.

³ Living HIV and AIDS Cases reflects people diagnosed with HIV or AIDS as a resident of North Dakota and were known to be living on December 31, 2004. All deaths may not have been reported.

Table 2. Characteristics of Persons Diagnosed With HIV (HIV and AIDS), North Dakota

New HIV/AIDS cases diagnosed:	2000-2004		1995-1999	
	No.	%	No.	%
Total	63	100	51	100
Sex				
Male	50	79	39	76
Female	13	21	12	24
Race/Ethnicity				
White	44	70	37	72
American Indian	4	6	7	14
Black	13	21	6	12
Hispanic	2	3	1	2
Age at Diagnosis by age group				
≥12 years	0	0	2	4
13-19 years	1	2	0	0
20-29 years	14	22	11	22
30-39 years	23	37	23	45
40-49 years	16	25	13	25
50-59 years	9	14	2	4
60+	0	0	0	0
Risk				
Male-to-male sexual contact (MMS)	29	46	21	41
Injecting drug use (IDU)	8	13	3	6
MMS/IDU	1	2	1	2
Heterosexual contact	14	22	13	25
Blood transfusion, disorder	1	2	2	4
Mother w/HIV	0	0	2	4
Other/Risk not specified	10	16	9	18

*Due to rounding, may not equal 100 percent.

2004 Tuberculosis Epidemiology Report

TB in North Dakota – 2004

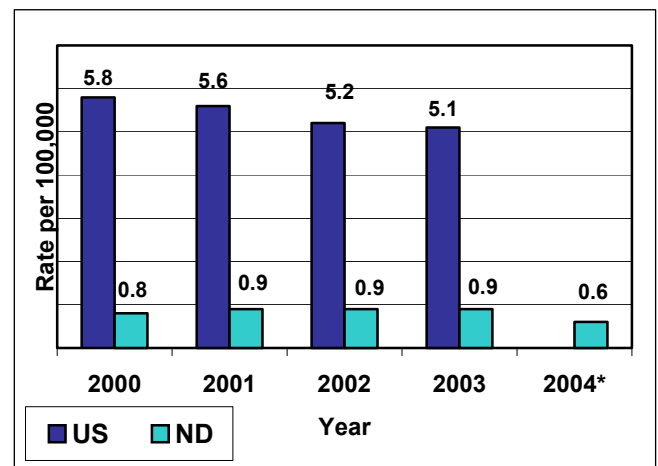
In 2004, four cases of tuberculosis (TB) were reported in North Dakota. With an incidence rate of 0.6 per 100,000, North Dakota continues to be considerably below the national rate. (Figure 1)

Two of the tuberculosis cases were pulmonary and two were extra-pulmonary. Extra-pulmonary cases involved the retina and the leg.

The ages of the tuberculosis cases ranged from 29 to 80, with a median age of 53. Two cases were white, one was American Indian and one was Asian.

Risk factors associated with tuberculosis in 2004 included belonging to a high-risk racial/ethnic group, being foreign-born and having prior tuberculosis infection. No tuberculosis-related deaths were reported in 2004.

Figure 1. United States and North Dakota Tuberculosis Disease Rates, 2000-2004



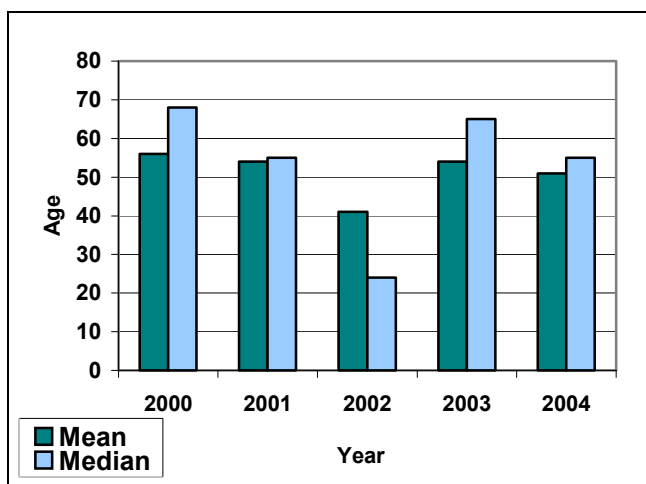
*U.S. TB disease rates were not available at the time of the report.

TB in North Dakota – 2000-2004

From 2000 through 2004, 27 cases of tuberculosis were reported in North Dakota. The number of annual tuberculosis cases ranged from four to six, resulting in an incidence rate of between 0.6 and 0.9 per 100,000.

Of the 27 cases, 14 were pulmonary (52%), 12 were extra-pulmonary (44%) and one was pulmonary/extra-pulmonary (4%). Sixty-three percent of the tuberculosis cases were age 50 and older. The mean and median ages of tuberculosis cases during the past five years were 51 and 55 respectively. As shown in Figure 2, the median age in 2002 was lower than in previous years. This is due to the diagnosis of disease in four adults between the ages of 21 and 25 years.

Figure 2. Tuberculosis by Age, North Dakota, 2000-2004



The race/ethnicity of tuberculosis cases during the past five years shows a disproportionately high number of the cases reported among minority populations. Cumulatively, American Indians, blacks and Asians account for only 6 percent of North Dakota's population but more than 50 percent of the states' reported TB cases. (Figure 3)

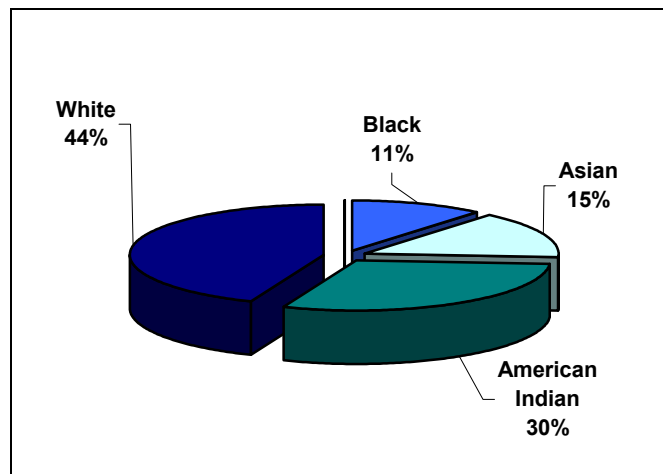
An increase in the diversity of the state's racial/ethnic populations during the past few years has contributed to the increased number of tuberculosis cases reported in these minority groups. While the number of foreign-born people in the state represents less than 2 percent of the state's total population, it increased 29 percent between 1990 and 2000.

Drug-Resistant Tuberculosis

Drug resistant tuberculosis (DR-TB) and multi-drug resistant tuberculosis (MDR-TB) present difficult problems for tuberculosis control. This is due to the complicated treatment regimen for the index case and the treatment of latent tuberculosis infection in contacts to the index case. The contact's treatment regimen must be

individualized based on the index case's medication history and drug susceptibility studies.

Figure 3. Percentage of Tuberculosis Cases by Race/Ethnicity, North Dakota, 2000-2004



With the increase in foreign-born populations entering the United States and North Dakota, the potential exists for an increase of DR-TB. During the past five years, however, there have been no cases of multidrug-resistant tuberculosis identified in North Dakota. Furthermore, only one case of single-drug resistance has been identified; an isolate in 2002 was resistant to streptomycin.

Latent Tuberculosis Infection

Latent TB infection (LTBI) occurs when individuals are infected with *M. tuberculosis* bacteria through direct exposure to active tuberculosis disease.

People with infection do not have active disease and are not infectious. Clinical findings of LTBI normally include a positive tuberculin skin test, absence of symptoms and a normal chest x-ray.

The number of tuberculosis infections reported in North Dakota over the past five years is shown in Table 3.

Table 3. Reported Cases of LTBI North Dakota, 2000-2004.

2000	2001	2002	2003	2004
572	368	304	321	366*

*Provisional data.

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Summary of Selected Reportable Conditions			
North Dakota, January – February 2004/2005			
Reportable Condition	January - February 2005*		January - February 2004
Campylobacteriosis	5		2
Chlamydia	272		280
Cryptosporidiosis	0		0
<i>E. coli</i> , shiga toxin positive (non-O157)	0		3
<i>E. coli</i> O157:H7	0		0
Enterococcus, Vancomycin-resistant (VRE)	7		4
Giardiasis	2		2
Gonorrhea	15		20
Haemophilus influenzae (invasive)	1		0
Hepatitis A	0		0
Hepatitis B	0		1
HIV/AIDS	1		4
Legionellosis	1		0
Lyme Disease	0		0
Malaria	0		0
Meningitis, bacterial ¹ (non meningococcal)	2		0
Meningococcal disease	1		0
Mumps	0		0
Pertussis	50		1
Q fever	0		0
Rabies (animal)	1		10
Salmonellosis	14		5
Shigellosis	0		1
<i>Staphylococcus aureus</i> , Methicillin-resistant (MRSA)	230		130
Streptococcal disease, Group A ² (invasive)	3		3
Streptococcal disease, Group B ² (infant < 3 months of age)	0		0
Streptococcal disease, Group B ² (invasive ³)	6		2
Streptococcal disease, other ² (invasive)	4		0
Streptococcal pneumoniae ² , (invasive, children < 5 years of age)	1		0
Streptococcal pneumoniae ² (invasive ⁴)	10		9
<i>Streptococcus pneumoniae</i> ² , drug-resistant	0		0
Tuberculosis	1		0
West Nile Virus Infection	0		0

*Provisional data

¹ Meningitis caused by *Staphylococcus aureus* and *Streptococcus pneumoniae*.

² Includes invasive infections caused by streptococcal disease not including those classified as meningitis.

³ Includes invasive infections of streptococcal, Group B, disease in persons \geq 3 months of age.

⁴ Includes invasive infections caused by *Streptococcus pneumoniae* in persons \geq 5 years of age.